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ABSTRACT

The Administrator Professional Leadership Scale (APLS) was developed to measure the professional leadership quality of a school principal, and to provide principals with anonymous feedback on teachers' perceptions of their leadership. Further refinement was carried out to increase its reliability; to discover categories of administrator behavior considered by teachers when evaluating leadership; and to improve the evaluation of principals according to these dimensions of leadership. Efforts to improve reliability reduced the scale from 24 to 18 items, and increased the number of principals rated. Three factors of effective leadership were indicated by the responses of 1,478 teachers who completed the APLS: (1) instructional leadership; (2) personal warmth; and (3) managerial effectiveness. A refined scoring procedure was implemented to improve the meaningfulness of principal evaluations. Respondents rated three principals (current principal, best ever known, and worst ever known) on a seven-point scale ranging from never to always. (The 24 items from the original APLS, and the 18-item revised APLS are appended). (GDC)

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# TEXAS NEEDS ASSESSMENT SYSTEM

Refinement of the
Administrator Professional
Leadership Scale
(APLS-II)

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Report 74-3

# Refinement of the Administrator Professional Leadership Scale (APLS-II)

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As Part of the
Texas Needs Assessment System
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A Project of the
Texas Center for the Improvement of Educational Systems

ABSTRACT

The paper presents an analysis of an instrument designed to measure the perceived leadership characteristics of school principals. The analysis suggests that the instrument can be improved in several respects. The revised instrument may be appropriate for use by school principals who wish to obtain information about how faculty perceive them, or for program evaluation efforts when the leadership provided by principals may produce variations in program implementation, and these influences need to be quantified.

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## Refinement of the Administrator Professional Leadership Scale (APLS)

The professional leadership of a school principal greatly affects staff morale, teacher performance, and student achievement. The Administrator Professional Leadership Scale (APLS) was developed to measure this clearly important quality of professional leadership. Specifically, the APLS instrument was developed to provide principals with anonymous feedback on teachers' perceptions of their leadership.

While the original APLS instrument served this purpose laudably, an effort has been made to refine APLS so that: (1) the instrument will provide insight into what catagories of behaviors teachers consider when evaluating professional leadership; (2) the instrument will be more reliable; and (3) principals can be meaningfully evaluated on each of the dimensions of leadership.

To determine the catagories of behaviors which teachers consider when evaluating administrative leadership, all APLS returns obtained to date were factor analyzed using a principal components procedure. Put simply, this procedure groups test items into factors based on the psychological meaning the behaviors had for the 1478 teachers from 44 schools in 6 school districts who have been APLS respondents.

The results of this analysis are presented in Table 1. The item factor loadings presented in Table 1 are estimates of

the amount each item contributed to establishing each factor. Three factors were identified by the principal components procedure. Inspection of items loading significantly on each factor provides insight into the nature of each factor. On the basis of such inspection, it was inferred that the three factors respectively measure "instructional leadership," "personal warmth," and "managerial effectiveness." The factors were so named.

Once the dimensions of teachers' attitudes toward professional leadership were established, the next step was to modify the instrument so as to improve its reliability. Toward this end, two criteria were applied to Table 1 data. Test items from the orginal APLS were retained for use on APLS, II, based on the strength and univocality of item loadings. Thus, the ideal test item might load -.999 (or .999) on the factor, "instructional leadership," but load .000 on the remaining two factors.

In this fashion, 6, 2, and 3 items were retained for use on APLS, II. An additional 4 and 3 items were selected to mark the latter two factors. The 18 items thus produced were next randomly ordered to constitute the list of test items presented in Figure 1.

To increase instrument reliability, the instrument was expanded so that respondents rate more than just one administrator. Now respondents will be asked to rate "Your current principal," "The one real principal whom you feel was or is the worst principal whom you have worked with or heard of," and

"The one real principal whom you feel was or is the best principal whom you have worked with or heard of." Such a procedure increases factor dimension reliability because the factors evolve out of repeated item reactions to different but related concepts. Too, use of this strategy provides a normative framework within which to judge "Your current principal." That is, it can be determined whether or not "Your current principal" is more like the "best" or "worst" principal-type.

Finally, to achieve the third purpose of meaningfully evaluating principals on each dimension of professional leadership, a refined APLS scoring procedure was specified.[1] Each respondent will rate the three principal-types on each test item, using the following scale:

1 - never
2 - almost never
3 - rarely
4 - occasionaly
5 - rrequently
6 - almost always
7 - always

In the future, these ratings of the three principal-types will together be factor analyzed by individual schools and individual districts, as well as be analyzed as a whole. Such a procedure avoids the as yet unproven assumption that factors will be the same for all school districts or individual schools.

Next, each respondent's original 18 ratings of the three principal-types will be converted to factor scores. Roughly

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[1]The authors acknowledge a debt of gratitude to R. G. Frankiewicz, who used a similar methodology in a paper submitted for presentation at the 1974 AERA convention by A. H. Miller, B. Thompson, and R. G. Frankiewicz.

speaking, this procedure weights raw 1-7 scores by factor loadings such as those presented in Table 1. Thus, if the factor analysis warranted belief that a school's teachers define leadership in terms of three attitude dimensions, each respondent would generate three factor scores for each principal-type.

These standard form factor scores will then be partitioned into three sets of scores, one for each principal-type. These data sets will be analyzed to determine shape of score distributions. If the score sets have near-normal distributions, then the mean is an appropriate measure of score central tendency. Perhaps more focally, the assumption of normality also means that probability or confidence intervals can be established wherein lies a "true" mean score corrected for sampling error.

Figure 2 presents hypothetical APLS, II, results for a school whose teachers used two attitude dimensions to define leadership qualities. Analysis of these results would support these conclusions:

1) the school's teachers ascribe Factor 1 qualities to their principal more similar to the qualities they ascribe to the "worst" principal than to the qualities they ascribe to the "best" principal;

2) the "best" principal is defined independent of Factor 2 qualities (note the confidence interval encompasses the zero or neutral position); and

3) "Your principal" is ascribed Factor 2 attributes antithetical to those attributes ascribed to the "worst" principal.

By way of summary, APLS, II, is improved in three respects over APLS, I. First, APLS, II, yeilds information about the attitudenal dimensions or factors which teachers consider when

evaluating a principal's professional leadership. Second, the instrument has improved reliability. Third, the instrument is now scored in such a way as to provide meaningful evaluation of leadership along each attitude dimension.

Two final notes on APLS, II. First, it is currently being plot-tested using teachers in night school as respondents. Second, the instrument now has a regenerative feature. Teachers are now asked to name at least one additional behavior which they believe is an important aspect of professional leadership. These statements will be reviewed, and possible incorporated into APLS, III, as additional or substitue test items.

Table 1

Factor Loading of APLS, I, Items

| Item | Factor Loadings | | |
|---|---|---|---|
| | Instructional Leadership | Personal Warmth | Managerial Effectiveness |
| 1 | .592* | .465* | -.168 |
| 2 | .634* | .320* | -.118 |
| 3 | .645* | .228 | -.282 |
| 4 | .657** | .226 | -.124 |
| 5 | .662** | .170 | -.065 |
| 6 | .742** | .096 | -.104 |
| 7 | .690** | .264 | -.223 |
| 8 | .705* | .313* | -.267 |
| 9 | .515* | .635* | -.195 |
| 10 | .663** | .084 | -.078 |
| 11 | .730** | .249 | -.187 |
| 12 | .697* | .321* | -.190 |
| 13 | -.076 | -.328* | .499* |
| 14 | .423* | .589* | -.062 |
| 15 | -.127 | .035 | .795** |
| 16 | -.211 | -.148 | .754** |
| 17 | .324* | .733** | -.109 |
| 18 | -.080 | -.677** | .362* |
| 19 | .439* | .497* | -.086 |
| 20 | .551* | .536* | -.139 |
| 21 | -.230 | -.289 | .500** |
| 22 | .471* | .602* | -.106 |
| 23 | -.116 | -.549* | .432* |
| 24 | -.246 | -.537 | .483* |

* significant item loadings
** items retained for use on APLS, II.

Table 1 continued

List of APLS, I, Items

1. Gives teachers the feeling that their work in an "important activity".
2. Gives teachers the feeling that they can make significant contributions to improving the classroom performance of their students.
3. Makes teachers' meetings a valuable educational activity.
4. Takes a strong interest in teacher's professional development.
5. Maximizes the different skills found in the faculty.
6. Gets teachers to upgrade their performance standards in their classrooms.
7. Helps to eliminate weakness in his school.
8. Has constructive suggestions to offer teachers in dealing with their major problems.
9. Treats teachers as professional workers.
10. Brings to the attention of teachers education literature that is of value to them in their jobs.
11. Helps teachers understand the sources of important problems they are facing.
12. Displays a strong interest in improving the quality of the educational program.
13. Requires teachers to engage in unnecessary paper work.
14. Displays integrety in his behavior.
15. Procrastinates in his decision-making.
16. Displays inconsistancy in his decisions.
17. Puts teachers at ease when they talk with him.
18. Makes those who work with him feel inferior to him.
19. Has the relevant facts before making important decisions.

List of APLS, I, Items continued

20. Develops a real interest in teacher's welfare.

21. Runs conferences and meetings in a disorganized fashion.

22. Develops a "we" feeling in working with others.

23. Rubs people the wrong way.

24. Makes a teacher's life difficult because of his administrative ineptitude.

Figure 1

List of APLS, II, Items

1. Establishes a good rapport with parents he/she deals with. (Factor 2)

2. Demonstrates more concern for his/her professional advancement than for teachers or students. (Factor 2)

3. Brings to the attention of teachers educational literature that is of value to them in their jobs. (Factor 1)

4. Requires teachers to do only paperwork which is essential for efficient school operation. (Factor 3)

5. Makes those who work with him feel inferior to him. (Factor 2).

6. Procrastinates in his decision making. (Factor 3)

7. Runs conferences and meetings in a disorganized fashion. (Factor 3)

8. Interacts openly with students. (Factor 2)

9. Maximizes the different skills found in the faculty. (Factor 1)

10. Effectively manages school resources. (Factor 3)

11. Put teachers at ease when they talk with him. (Factor 2)

12. Schedules classes and assigns teaching responsibilities efficiently. (Factor 3)

13. Helps to eliminate weaknesses in his school. (Factor 1)

14. Gets teachers to upgrade their performance standards in their classrooms. (Factor 1)

15. Helps teachers understand the sources of important problems they are facing. (Factor 1)

16. Shows concern about people as people. (Factor 2)

17. Displays inconsistancy in his decisions. (Factor 3)

18. Gives teachers the feeling that their work is an "important activity". (Factor 1)

Figure 2

APLS, II, Score Data

For A Hypothetical Principal